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## SUPERNUMERARY MAMMARY GLANDS AND NIPPLES. THREE CASES.

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THAT only about one hundred cases (105, Liechtenstern) of polymastia have been recorded will at once appear as the *raison d'être* of this brief communication. A somewhat unusual opportunity for the examination of patients in hospital practice and in the examination of recruits, has convinced the writer that these additional mammae are not, at least in this country, of very frequent occurrence. It is proper, however, to add that Dr. J. Mitchell Bruce is of the opinion that the number of cases seen by practitioners and not reported must be very great. It becomes somewhat interesting to look into and, if possible, arrive at the cause of these abnormalities. Laycock, in endeavoring to explain the existence of the accessory glands, thinks that the mammae are simply enlarged and highly developed sebaceous glands, and may make their appearance in any part of the body.

I might cite as a possible example of this theory, Klob's case of an accessory mamma growing on the left shoulder of a man, on the prominence of the

<sup>1</sup> Read before the Philadelphia Pathological Society, January 14, 1886.

deltoid.<sup>1</sup> It was a true mammary gland, and had a nipple about a quarter of an inch in length, the entire gland being about the size of a walnut.

In turning to the morphological significance of these cases, we must consider the character of the mammary glands in the different orders of mammalia, remembering that in the marsupialia and the monotremata the glands possess no nipple, their orifices being mere scattered pores in the skin.<sup>2</sup>

In the Simiadæ, from the anthropoid apes to the marmosets or arctopithecini, "the teats are only two in number," and they are pectoral.<sup>3</sup> In the lower section of the Primates, the Lemuridæ, "sometimes there are one or two pairs of teats on the abdomen in addition to the ordinary pectoral pair."<sup>4</sup>

In the aye-aye (*Cheiromys Madagascariensis*) "there is but one pair of nipples, situated about one inch and a half in advance of the vulva, and one inch apart."<sup>5</sup>

We are all familiar with the vulvo-pectoral teats of the common carnivora and the inguinal udder of the ruminants. In the Pteropodidæ (fruit bats or flying foxes) and the flying "lemur," *Galeopithecus*, we find axillary teats.

So if we desire to explain the presence of supernumerary mammary glands in women by the reversion theory, we see that there are numerous places where the accessory organs may grow; yet, as we will see later, the recorded cases seem to differ in their site from all morphological laws.

<sup>1</sup> Zeitschrift der k. k. Gesellsch. der Aerzte zu Wien, 1858, No. 52, p. 815.

<sup>2</sup> Prof. W. H. Flower, LL.D., F.R.S., and G. E. Dobson, M.A., M.B.

<sup>3</sup> Huxley's Manual of the Anatomy of the Vertebrated Animals.

<sup>4</sup> Huxley, *Ibid.*

<sup>5</sup> Prof. Owen, *The Anatomy of the Vertebrates*, vol. iii.

That our species present the pectoral position of the teats does not show any special superiority, as the glands are found in the same position in the bat, dugong, manatee, elephant, sloth, and the ant-eater.

We do not find the number of teats always in relation to the offspring ; as, for example, the rat has twelve, whereas the guinea-pig has but two ; again, the tenrec (*centetes*), an animal somewhat like a hedgehog, has twenty-two nipples, and Owen tells us that in the European hedgehog there are ten, ranging from the pectoral to the inguinal region, adding that the thin, flat mammary gland of this insectivorous animal seems to form a continuous stratum.

Before leaving this part of our subject, it may be interesting to note that Professor Owen<sup>1</sup> describes a female orang-outang with an accessory nipple on the left side, below the normal one and of smaller size.

The case that I am about to record was noted in the spring of 1884, in company with my student, Dr. Thomas D. King, of Springfield, Ohio.

CASE I.—John J. B., æt. thirty-six, a healthy, well-developed man, came under my care for subacute alcoholism, and while examining his chest for impending pneumonia an accessory nipple was noted on the right side almost on a line with and three inches below the normal one, similar in size, presenting an areola with glandular nodules and a few stiff hairs. There was no discharge from either the normal glands or the accessory nipple ; it had never caused the patient any inconvenience, beyond a certain hesitancy and delicacy in confessing the abnormality.

In conversation with my patient, I learned that his

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<sup>1</sup> Anatomy of the Vertebrates, vol. iii. p. 730.

sister presented the same abnormality, and an interview was arranged.

CASE II.—Mrs. N. M., aet. thirty-eight, mother of four children, the youngest a nursling. The woman was a perfect specimen of the healthy Irish-American female that we so frequently meet.

The accessory breast in this case was on the left side, normal in appearance, somewhat smaller than the other two, but was functionally active with a good flow of milk from a perfectly normal nipple; during my visit the child would nurse indiscriminately from any of the breasts. The woman informed me that she had nursed all of her children in this way. I learned that the supernumerary gland developed coincidently with the others, becoming active as they did and again physiologically barren as their secretion retroceded.

These two cases, and the two reported by Handyside,<sup>1</sup> open an interesting field in the study of the inheritance of the abnormality. In no case recorded by Bruce (*Ibid.*) was heredity at all clear. Liechtenstern could find no illustration of heredity among his own cases, but remarks that inheritance was indicated in 7 of the 92 cases recorded in literature.

All the instances of supernumerary nipple that came under observation were situated on the front of the trunk, below the level of the ordinary mamma and somewhat nearer the middle line, but unfortunately for those adherents of the theory of morphological explanation of these cases, abdominal nipples are extremely rare. Bruce, however, describes two cases where one of a pair of nipples was distinctly below the costal cartilages.

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<sup>1</sup> Notice of Quadruple Mammæ, the lower two rudimentary, in two adult brothers, by P. D. Handyside, M.D., etc., *Journ. of Anat. and Phys.*, vol. vii. p. 56, 1873.

Liechtenstern's conclusion, from his own experience and from the recorded cases, is that "accessory nipples and breasts occur in 91 per cent. of the cases at the front of the thorax; and in 94 per cent. of these below the normal." In one of Liechtenstern's cases, the nipple occurred in the axilla, which is an extremely rare situation. All observers agree in stating that additional mamma or nipples are most frequently seen on the left side. Liechtenstern endeavors to account for this by the well-known fact that the left mamma is, as a rule, more developed than the right, and that mothers use the left more than the right in suckling. He is of the opinion that the same relation exists in the child and virgin.

As to the frequency of this abnormality, I may mention that in Bruce's investigations of 3956 persons 61 cases of supernumerary mamma or nipples were found, being 1.54 per cent. Of these cases 51 were simple cases, presenting a single supernumerary nipple or mamma, 10 were multiple, presenting more than one supernumerary nipple.

A perusal of Mitchell Bruce's exhaustive article would lead one to conclude that supernumerary nipples or *mammæ* must be much more frequent in England than they are in this country, as, out of 315 persons taken as they come and go in a dispensary service, he found that 287 individuals presented no supernumerary nipples or mammary glands; 24 individuals presented one or more supernumerary nipples or *mammæ*; and 4 individuals presented appearances which were regarded as doubtful instances of the abnormality. A representation of this result in percentages would be as follows: 91.1 per cent. presented no supernumerary nipple or mamma; 7.619 per cent. presented one or more supernumerary *mammæ* or nipples; and 1.27 per cent. possessed what

was doubtfully regarded as the abnormality. This is certainly a high rate of frequency, even above that of Liechtenstern, who places it at "1 in 500 persons at least." As to the relative frequency of the abnormality in the sexes, it appears from the above statistics, which are undoubtedly the best that are available, that supernumerary nipples occurred very nearly twice as frequently among men as among women; this conclusion also agrees with Prof. Liechtenstern's result. It will be readily understood that definite statistics are extremely hard to formulate in these matters, as some cases will undoubtedly be overlooked unless attention is particularly called to the mammary regions. Again, some of these supernumerary nipples may quite escape detection on account of their want of resemblance to the normal standard; for example, the additional nipple may be wanting in the areola, the follicles, the marginal hairs, or, again, the papilla may be poorly developed, as may also be the terminal depression or opening. We may be misled by a hair springing from the summit of the papilla, as in one of Bruce's cases.

Before leaving the subject, it is, perhaps, well to mention some cases of supernumerary mammae in unusual situations.

Dr. Fitzgibbon<sup>1</sup> records the case of an individual with double and symmetrical supernumerary nipples below and within the normal, together with two pigmentary deposits, one on either breast higher up.

Accessory mammae, with nipples, have been found in the axilla,<sup>2</sup> and to Liechtenstern also belongs the credit of describing two cases of dorsal mammae; his references, quoted by Bruce, are as follows: 1. Ch.

<sup>1</sup> Dublin Quarterly Journal of Medical Sciences, vol. xxix. p. 109, February, 1860.

<sup>2</sup> Liechtenstern, with illustration.

F. Paulinus (*Observat. Medico-physic Select.*, in the *Miscell. Curios. Academ. Med. Phys. Nat. Curios.* dec. II. ann. iv. page 203, Appendix); 2. Joh. Otto Helbig (*De rebus variis indicis*, Obs. 194, quoted in *Miscell. Curios.*, etc., dec. II. ann. ix. and x. p. 456, ii.).

Again must we credit Liechtenstern with showing the fallacy in the statement of the existence of inguinal mammae. He has pointed out the fact that the idea has arisen by careless reference to Roberts's case (see Luschka, *Anatomie des Menschen*, Band I. Abthril. 2) of a woman who had an accessory mamma on the outer aspect of the left thigh, four inches below the trochanter; it was accidentally discovered by the patient's child, who one day attempted to suck the nipple.

Dr. H. L. Turney<sup>1</sup> reports a case of additional mammary gland in the right axilla; it was nippleless, but secreted milk freely from several orifices after each confinement.

Dr. Cohn presented a patient before a meeting of the Berliner Medizinische Gesellschaft, in February, 1885, with an accessory mammary gland in the left axilla, from which milk dribbled away. There was no nipple. Mr. A. H. E. Cameron<sup>2</sup> also records a case of left axillary mammary gland without nipple; and Mr. Bickersteth informs him that he has seen two similar cases of nippleless glandular tumors bearing the characters of mammary glands.

The following case occurred in the practice of Dr. H. R. Wharton, of Philadelphia, to whom I am indebted for the notes:

CASE III.—Mrs. S., æt. twenty-seven, in her third confinement, called my attention to a super-

<sup>1</sup> Nashville Journal of Medicine and Surgery, April, 1883.

<sup>2</sup> Journal of Anatomy and Physiology, 1879, vol. xiii. p. 149.

numerary nipple on the right breast, situated about three inches below the normal nipple, just at the edge of the mammary gland. It was smaller than the normal nipple, had a well-developed areola, contained milk, and the child could use either indiscriminately. Before her first confinement she thought it was a mole, but at this time it became enlarged and contained milk which escaped freely from it at the time I saw her.

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